

April 20, 2017

Dave Blye Environmental Standards, Inc. 1140 Valley Forge Road PO Box 810 Valley Forge, PA 19482

RE: Project: Hudson River Remedial Action M

Pace Project No.: 10385163

Dear Dave Blye:

Enclosed are the analytical results for sample(s) received by the laboratory on April 15, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

Oard Day

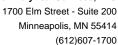
carol.davy@pacelabs.com 1(612)607-6436

Project Manager

Enclosures

cc: Meg Michell, Environmental Standards, Inc.







CERTIFICATIONS

Project: Hudson River Remedial Action M

Pace Project No.: 10385163

Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414

A2LA Certification #: 2926.01 Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: UST-078

Alaska DW Certification #: MN00064
Arizona Certification #: 88-0680
California Certification #: MN00064
CNMI Saipan Certification #: MN00064
CNMI Saipan Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida Certification #: E87605
Georgia Certification #: 959

Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064

Maine Certification #: MN00064 Maryland Certification #: 322 Michigan Certification #: 9909 Minnesota Certification #: 027-053-137
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530 North Dakota Certification #: R-036 Ohio DW Certification #: 41244 Ohio VAP Certification #: CL101 Oklahoma Certification #: 9507

Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #: 74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486

West Virginia DW Certification #: 9952 C West Virginia WW Certification #: 382 Wisconsin Certification #: 999407970

Wyoming via EPA Region 8 Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

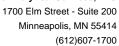
Project: Hudson River Remedial Action M

Pace Project No.: 10385163

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10385163001	HFL-SVDB-T170413113404	Water	04/13/17 09:50	04/15/17 09:05
10385163002	HFL-WAFO-T170413113508	Water	04/13/17 10:46	04/15/17 09:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Hudson River Remedial Action M

Pace Project No.: 10385163

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10385163001	HFL-SVDB-T170413113404	SM 2540D	NAS	1	PASI-M
10385163002	HFL-WAFO-T170413113508	SM 2540D	NAS	1	PASI-M

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Hudson River Remedial Action M Project:

Pace Project No.: 10385163

Method: SM 2540D

Description: 2540D TSS, Low Level Client: GE Anchor QEA, LLC Date: April 20, 2017

General Information:

2 samples were analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Hudson River Remedial Action M

Pace Project No.: 10385163

Sample: HFL-SVDB-T170413113404 Lab ID: 10385163001 Collected: 04/13/17 09:50 Received: 04/15/17 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
2540D TSS, Low Level	Analytical Method: SM 2540D									
Total Suspended Solids	7.6	mg/L	1.0	0.50	1		04/18/17 12:16			

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1700 Elm Street - Suite 200 Minneapolis, MN 55414 (612)607-1700



ANALYTICAL RESULTS

Project: Hudson River Remedial Action M

Pace Project No.: 10385163

10385163

Sample: HFL-WAFO-T170413113508 Lab ID: 10385163002 Collected: 04/13/17 10:46 Received: 04/15/17 09:05 Matrix: Water

Parameters Results Units **PQL** MDL DF Prepared CAS No. Analyzed Qual 2540D TSS, Low Level Analytical Method: SM 2540D Total Suspended Solids 21.6 04/18/17 12:16 mg/L 1.1 0.53

REPORT OF LABORATORY ANALYSIS

(612)607-1700



QUALITY CONTROL DATA

Project: Hudson River Remedial Action M

Pace Project No.: 10385163

Date: 04/20/2017 12:26 PM

QC Batch: 469114 Analysis Method: SM 2540D

QC Batch Method: SM 2540D Analysis Description: 2540D TSS, Low Level

Associated Lab Samples: 10385163001, 10385163002

METHOD BLANK: 2561709 Matrix: Water

Associated Lab Samples: 10385163001, 10385163002

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Total Suspended Solids mg/L <1.0 1.0 0.50 04/18/17 12:16

LABORATORY CONTROL SAMPLE & LCSD: 2561711 2561710 Spike LCS LCSD LCS LCSD % Rec Max Parameter Units Conc. Result Result % Rec % Rec Limits **RPD RPD** Qualifiers 3 **Total Suspended Solids** mg/L 100 92.1 94.9 92 80-120

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Hudson River Remedial Action M

Pace Project No.: 10385163

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

Date: 04/20/2017 12:26 PM

PASI-M Pace Analytical Services - Minneapolis

10385163 9 of 25

(612)607-1700



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hudson River Remedial Action M

Pace Project No.: 10385163

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10385163001	HFL-SVDB-T170413113404	SM 2540D	469114		
10385163002	HFL-WAFO-T170413113508	SM 2540D	469114		

REPORT OF LABORATORY ANALYSIS

A ANCHOR

Client: General Electric Company 105 West Grand Avenue Mouvale, NJ 07645 Pr.: 201-930-9390

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

Project: Hudson River Remedial Action Monitoring Program - Resuspension Monitoring

Lab:

COC ID: COC170413113656PACE Sample Custodian:

59188501

PACE

Preservativ 4degC 4degC 504 N 504 Turn Around Time 504 (hrs) Z MS MSD LD N z METHOD SM 2540D SM 2540D NE294_02 NE294 02 TEST REQUESTED Total Suspended Solids Total Suspended Solids CS PCBs CS PCBs # Containers Media* 10:46 Time Collected 04/13/2017

Date Collected

Matrix *

COC Sample Number

QA/QC EN

HFL-SVDB-T170413113404 Field Sample ID

90

04/13/2017

≥

EN

HFL-WAFO-T170413113508

002

4degC

*TSS only shipped to PACE-MN 4/14/17

	Comments:				
	Signature A	Received by:	Relinquished by: Received by:	Relinguished by:	Received hy
	I will	amenda a managaran	Signature Signature A	amentis CM W	Signature
	Printy Name	Print Name 1/ // 1.1.1//	1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A MAKE THE LESS OF	N. Comment
F	Trum Colon	ジュークセスングラブ	WELL TO KANICOLE FINISHED	100 Name 0 17 1 6	Print Name
ag	Ompany (1)	Company Oracle	Company Selection of the Tensor Selection of the Selection of the	Company DA CL	Company 7 / 4
e 1′	Date/Time // // // // // // // // // // // //</td <td>' 6/ Date/Time C/ 1/1</td> <td>Date/Time " - - - 10 Date/Time 1/14/7 1/40</td> <td>17</td> <td>イング Data Care コンベルト のの名</td>	' 6/ Date/Time C/ 1/1	Date/Time " - - - 10 Date/Time 1/14/7 1/40	17	イング Data Care コンベルト のの名
1	, ,			1	

* S= SEDIMENT, W= WATER, PW= PORE WATER Date Printed: 4/13/2017

** W = Total/Whole, D = Dissolved, R = Residue, S = Sediment

Page 1 of 1

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Document Name: Sample Condition Upon Receipt Form

Document No.: F-MN-L-213-rev.20

Document Revised: 19Dec2016 Page 1 of 2

Issuing Authority:
Pace Minnesota Quality Office

Sample Condition Upon Receipt Client Name: Anchor QEX		I	Project (* WO#:10385163
<u> </u>]USPS	 □cii	iont	
KIIGGEV LIGHT]Other:		ient.	
Tracking Number: 7145 4771 84	16			10385163
Custody Seal on Cooler/Box Present? Yes No	S	eals Inta	ct? 🔯	Yes No Optional: Proj. Due Date: Proj. Name:
Packing Material: 🄀 Bubble Wrap 🔲 Bubble Bags	None		ther:	Temp Blank? Yes No
Thermometer	Туре	of Ice:	X Wet	☐Blue ☐None ☐Samples on ice, cooling process has begun
Cooler Temp Read (°C): 1.3 Cooler Temp Corre		10	>	Biological Tissue Frozen? Yes No N/A
Temp should be above freezing to 6°C Correction Factor	: <u> </u>	. 2	Date	and Initials of Person Examining Contents: 300 14-15-17
USDA Regulated Soil (X N/A, water sample) Did samples originate in a quarantine zone within the United Sta	toc Al Al	R CA FI	GA ID I	A. MS, Did samples originate from a foreign source (internationally,
NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?		∐Y€	25	No including Hawaii and Puerto Rico)?
If Yes to either question, fill out a Regul	ated Soil	Checklis	t (F-MN-	Q-338) and include with SCUR/COC paperwork.
				COMMENTS:
Chain of Custody Present?	Yes	□No		1.
Chain of Custody Filled Out?	Yes	□No		2.
Chain of Custody Relinquished?	∑Yes	□No		3.
Sampler Name and/or Signature on COC?	☐Yes	Mo	□N/A	4.
Samples Arrived within Hold Time?	Yes	N₀		5.
Short Hold Time Analysis (<72 hr)?	Yes	MNo		6.
Rush Turn Around Time Requested?	Yes	<u></u> No_		7.
Sufficient Volume?	tyyes	No		8.
Correct Containers Used?	Yes	□No		9.
-Pace Containers Used?	∑AYes	□No		40
Containers Intact?	Yes	□No	EH (-	10.
Filtered Volume Received for Dissolved Tests?	Yes	□No	XIN/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	Yes	∐No		12.
-Includes Date/Time/ID/Analysis Matrix: W\ All containers needing acid/base preservation have been				Positive for Res.
checked?	□Yes	□No	τ <mark>⊈</mark> ΩN/A	13. ☐HNO₃ ☐H₂SO₄ ☐NaOH Chlorine? Y N
All containers needing preservation are found to be in compliance with EPA recommendation?			1 .	Sample #
(HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	□Yes	□No	MN/A	
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease,	п.,	п.,		Initial when Lot # of added
DRO/8015 (water) and Dioxin. Headspace in VOA Vials (>6mm)?	Yes Yes	□No	⊠N/A W/A	completed: preservative: 14.
Trip Blank Present?	Yes	□No	MN/A MN/A	15.
Trip Blank Custody Seals Present?	Yes	□No	[/ N/A	
Pace Trip Blank Lot # (if purchased):			42.7	
CLIENT NOTIFICATION/RESOLUTION				Field Data Required? Yes No
Person Contacted:				Date/Time:
Comments/Resolution:				
		•		
Project Manager Review:	309			Date: 4/17/17
Note: Whenever there is a discrepancy affecting North Carolina com	ıplia <i>ld</i> e sa	mples, a c	copy of thi	s form will be sent to the North Carolina DEHNR Certification Office (i.e. out of

hold, incorrect preservative, out of temp, incorrect containers).



Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 10385163

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InOrganic

Gravimetric

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SAMPLE NO.

FORM I INORGANIC-1
INORGANIC ANALYSIS DATA SHEET

HFL-SVDB-T170413113404

Lab Name: Pace A	nalytical - Minnesota	SDG No. : 10385163	Contract:	Hudson River Remedial Action	
Lab Sample ID: 10	0385163001	_	Percent Me	oisture:	

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Total Suspended Solids	7.6		mg/L	1	04/18/2017 12:16

SAMPLE NO.

FORM I INORGANIC-1 HFL-WAFO-T170413113508

INORGANIC ANALYSIS DATA SHEET

ab Name: Pace Ar	nalytical - Minnesota	SDG No. : 10385163	Contract:	Hudson River Remedial Action
ab Sample ID: 10	385163002		Percent Mo	oisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Total Suspended Solids	21.6		mg/L	1	04/18/2017 12:16

FORM III INORGANIC-1 BLANKS

Lab Name: Pace Analytical - Minnesota	SDG No. : 10385163 Contract : Hudson River Remedial Action M
Method Blank Matrix: Water	Instrument ID: 10WET4
Method Blank Concentration Units: mg/L	

Analyte	Initial Calibration Blank		C	ont	inuing Calibratio	n E	Blank		Method Blan	k
		С		С		С		О	2561709	С
Total Suspended Solids									<1.0	U

04/20/2017 10:08 10385163

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FORM VI INORGANIC-1 DUPLICATES

SAMPLE N	O.
----------	----

2561711LCSD

Lab Name:	Pace Analytical - Minnesota	SDG No.: 10385163	Contract:	Hudson River Remedial Action
		_		

Matrix: Water Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Total Suspended Solids	10	92.1	94.9	3

SAMPLE NO.

FORM VII INORGANIC-1 LABORATORY CONTROL SAMPLE

2561710LCS

Lab Name: Pace Analytical - Minnesota SDG No. : 10385163 Contract: Hudson River Remedial Action

Matrix: Water

Analyte	Units	True	Found	%R	Lin	nits
Total Suspended Solids	mg/L	100	92.1	92	80	120

SAMPLE NO.

FORM VII INORGANIC-2 LABORATORY CONTROL SAMPLE

2561711LCSD

Lab Name: Pace Analytical - Minnesota SDG No. : 10385163 Contract: Hudson River Remedial Action

Matrix: Water

Analyte	Units	True	Found	%R	Lin	nits
Total Suspended Solids	mg/L	100	94.9	95	80	120

FORM IX INORGANIC-1 METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Minnesota SDG No.: 10385163 Contract: Hudson River Remedial Action M

Preparation Method: SM 2540D Instrument ID: 10WET4

Concentration Units: mg/L

Analyte	PQL	MDL	MDL Date
Total Suspended Solids	2.0	1.0	04/01/2015

FORM XII INORGANIC-1 PREPARATION LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10385163 Contract: Hudson River Remedial Action M

Preparation Method: SM 2540D Batch: WET 53010

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
2561709	2561709	04/18/2017	1000	500
2561710	2561710	04/18/2017	1000	500
2561711	2561711	04/18/2017	1000	500
10385163001	HFL-SVDB-	04/18/2017	995	500
10385163002	HFL-WAFO-	04/18/2017	950	500

FORM XIII INORGANIC-1 ANALYSIS RUN LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10385163 Contract: Hudson River Remedial Action M

Instrument ID: 10WET4 Analysis Method: SM 2540D

Start Date: 04/18/2017 12:16 End Date: 04/18/2017 12:16

Sample Name	Lab Sample ID	D/F	Date	Time	tss w
2561709BLANK	2561709	1	04/18/2017	12:16	Χ
2561710LCS	2561710	1	04/18/2017	12:16	Χ
2561711LCSD	2561711	1	04/18/2017	12:16	Χ
HFL-SVDB-T170413113404	10385163001	1	04/18/2017	12:16	Χ
HFL-WAFO-T170413113508	10385163002	1	04/18/2017	12:16	Х

Mace Analytical Prep Log Report

Batch Information: WET 53010 TSS LL

Oven Temp Correction Factor Desic. Out 2 Date/Time | Init Desic. Out 1 Date/Time | Init Instrument 14 | 04/18/2017 13:30 | NAS 14 | 04/19/2017 07:38 | NAS 4310 NAS Thermometer ID Desic. In 2 ID | Date/Time | Init Desic. In 1 ID | Date/Time | Init Analyzed By Batch Notes 103.0 | 103.0 | 04/18/2017 13:30 | NAS 103.0 | 103.0 | 04/19/2017 07:38 | NAS 04/19/2017 15:18 SM 2540D 10WET17 Oven Temp Out1 | Corr | Date/Time | Init Oven Temp Out2 | Corr | Date/Time | Init Reviewed By Date Analysis Method

Sample Information:

4Jan2017)
2
ev.03
ž
F-MN-I-326-
Version:
Template

10WET4

104.0 | 104.0 | 04/18/2017 12:16 | NAS

Oven Temp In1 | Corr Date/Time | Init

103-105 C

Acceptance Range:

104.0 | 104.0 | 04/18/2017 15:23 | NAS

Oven Temp In2 | Corr Date/Time | Init

04/18/2017 15:19 | NAS

DCL

Reviewed By

04/19/2017 09:00 | NAS

(g) S łW nəvO	0.1153	0.2064	0.2263	0.1243	0.1357	0.1399	0.1331	
r əsU nəvO	N	Z	N	Z	Z	Z	N	
(9) I IW nevO	0.1156	0.2065	0.2264	0.1245	0.1359	0.1402	0.1334	
Filter Use 1	M	M	M	M	M	M	M	
Filter Wt 1 (9)	0.1158	0.1143	0.1314	0.1180	0.1186	0.1323	0.1126	
TSS Filters ()	116205 ()	116205 ()	116205 ()	116205 ()	116205 ()	116205 ()	116205 ()	
əmuloV liitisi Volume (mL)	1000	1000	1000	955	1000	995	950	
Run Date/Time	04/18/2017 12:16							
TSS Posted (mg/L)	-1.0000	184.20	189.80	12.600	34.200	15.200	41.000	
(J\gm) Isni7 SST	-0.50000	92.100	94.900	6.5969	17.100	7.6382	21.579	ā
al	cMX7B	cMX7C	cMX7D	cMX7E	cMX7F	cMX7G	cMX7H	
Select	Ā	Y	Ā	Y	Y	Y	Y	
di əlqms2 dsJ	2561709	2561710	2561711	10384872001	10384872002	10385163001	10385163002	
Sample Type	BLANK	rcs	LCSD	PS	PS	PS	PS	
ac Rule	2540D WLL							

10 of 11

TS/TDS-SPK (mL)		115777 (50)	115777 (50)	
Sample Notes				1*
Ven Wt Diff 1&2	0.0003	0.0001	0.0001	0.0002
Oven %Diff 1&2	85.714	0.10852	0.10532	3.1250
S 9sU nəvO	Y	Y	Y	Y
Lab Sample ID	60,	710	711	10384872001
	25617	2561	25617	10384
Sample Type	BLANK 2561709	LCS 2561710	LCSD 2561711	2540D WLL PS 10384

25 Apr 2017 10:08:26 -0500

Pace Analytical Prep Log Report

TS/TDS-SPK				
Sample Notes		1*	1*	
Oven Wt Diff 1&2	0.0002	0.0003	0.0003	
Oven %Diff 1&2	1.1628	3.8710	1.4528	
Ven Use 2	Y	Y	Y	
Di əlqms2 ds1	10384872002	10385163001	10385163002	
Sample Type	PS	PS	PS	:S:
gc Rule	$2540 \mathrm{D} \mathrm{WLL}$	2540D WLL	2540D WLL	Sample Notes:
10385163	2540	254(254	San

115777: TS/TSS/TDS Handmade Standard, Used

25 of Apr 2017 10:08:26 -0500